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Docket No.: 004956.P003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Mark S. Knighton, et. al.

Application No.: 09/660,811

Filed: September 13, 2000

Title: **DIGITAL IMAGING SYSTEM HAVING DISTRIBUTION CONTROLLED OVER A DISTRIBUTED NETWORK**

Art Group: 2613

Examiner: George A. Bugg

APPEAL BRIEF

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant (hereinafter "Appellant") submits one copy of the following Appeal Brief pursuant to 37 C.F.R. § 1.192 for consideration by the Board of Patent Appeals and Interferences. Appellant also submits herewith a check in the amount of $500.00 to cover the cost of filing the opening brief as required by 37 C.F.R. § 41.20(b)(2). Please charge any additional amount due or credit any overpayment to deposit Account No. 02-2666.

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I. REAL PARTY IN INTEREST

Mark S. Knighton et. al., the parties named in the caption, assigned their rights to the invention disclosed in the subject application through an Assignment recorded on September 13, 2000, at reel and frame 011093/0620 to NextEngine, Inc., 401 Wilshire Boulevard, 9th Floor, Santa Monica, California 90401. Therefore, NextEngine, Inc. is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this Appeal.

III. STATUS OF CLAIMS

Claims 1-30 are pending in the application. The Examiner has rejected claims 1-30. Therefore, Appellant appeals the rejection of claims 1-30.

IV. STATUS OF AMENDMENTS

No amendments were filed subsequent to the final rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The embodiments of the instant application provide a digital imaging system relating to capture and distribution of three-dimensional images. See Page 1, line 5.

In particular Claim 1 recites a digitizer 170 capable of collecting three-dimensional data about an object, an orientation fixture 180 to automatically reposition the object from a first orientation to a second orientation to expose a first aspect and a second aspect of the object relative to the digitizer 170, a controller 192 to coordinate the automatic repositioning with data capture by the digitizer 170 and wherein the orientation fixture 180 and the digitizer 170 are physically independent units without a predefined relative position. See Page, 4, lines 18-24; Page 5, lines 9-11; Page 7, lines 8-15; Figure 1. The orientation fixture 180 may for example be a robotic arm or a

turntable. See Page 5, lines 11-15. The term "physically independent" is defined within the application to mean that no mechanical or wired electrical connection exists between the physically independent units during operation. See Page 5, lines 1-3. For example, two devices coupled together by an electrical signaling wire either directly or through a host computer, are not physically independent, whereas two devices that have no physical coupling and communicate over a wireless link are deemed physically independent. See Page 5, lines 3-6. The physical independence of the orientation fixture 180 and digitizer 170 allow for relative ease of setup to facilitate wide acceptance. See Page 5, lines 20-21. Thus, with the physical independence it is desirable that the digitizer 170 and orientation fixture 180 are able to "find" each other. See Page 5, lines 21-22. In this aspect, the digitizer 170 may be equipped to sweep an area looking with its sensing apparatus for a feature of the orientation fixture 180. See Pages 4-5, lines 22-23, 1. A host 150 may further be provided, such as a computer, for forwarding data across a distributed network such as for example where communication over a wireless link 162 to the digitizer 170 is required. See Page 4, lines 9-14.

Claim 2 recites that at least one of the digitizer 170 and orientation fixture 180 is capable of automatically locating the relative position of the other. See Pages 4-5, lines 22-23, 1.

Claims 3 and 14 recite that the digitizer 170 is capable of automatic calibration. See Page 6, lines 6-8.

Claim 8 recites the orientation fixture 180 having a self contained power source. See Page 7, lines 4-5. Such self contained power source may be, for example, a battery, solar panel, fuel cell or any other suitable power source. See Page 7, lines 6-7. Claim 9 further recites that the digitizer 170 having a self contained power source. Still further, in an embodiment where the system is a single unit, as is recited in Claim 18, the single unit includes a self contained power source.

Claim 10 further provides that the orientation fixture 180 comprises a distinctive feature that permits the digitizer 170 to acquire the orientation fixture by scanning an area for the distinctive feature. Claim 11 recites the orientation fixture 180 may

comprise a localized energy source that permits the digitizer 170 to acquire the orientation fixture 180. See Page 5, lines 21-22; Pages 4-5, lines 22-23, 1. For example, the orientation fixture 180 may include an acquisition indicia 188 or a localized radiation source 186. See Page 5, lines 2, 15.

Claim 13 recites a system comprising a digitizer 170 having a linear image sensor to collect three-dimensional data about an object, an orientation fixture 180 to automatically reposition the object from a first orientation to a second orientation to expose a first aspect and a second aspect of the object relative to the digitizer 170, wherein the digitizer 170 and orientation fixture 180 are integrally coupled as a single unit and a controller 192 to coordinate the automatic repositioning with data capture by the digitizer. See Page, 4, lines 18-24; Page 5, lines 9-11; Page 7, lines 8-15; Page 10, lines 1-5; Page 11, lines 18-23; Figure 1; Figure 3. The image sensor may for example be an image sensing array (ISA) aligned with an image capture window 76 which captures the image of the object 82 within a focal zone. See Page 10, lines 1-3. In one embodiment, the ISA may be a linear charge coupled device or complimentary metal oxide semiconductor sensor. See Page 10, lines 3-5.

Claims 5 further recites that the host 150 comprises a distributed network interface, the interface to transmit the three-dimensional representation to a remote user node 110. See Page 4, lines 1-16; Figure 1. Similarly, Claims 16 recites that the host 150 comprises a distributed network interface, the interface to transmit the three-dimensional representation to a remote node. See Page 4, lines 1-16; Figure 1. Claims 6 and 7 further provide that the digitizer 170 may communicate with the host 150 over a wireless link (Claim 6) or the orientation fixture 180 over a wireless link (Claim 7). See Page 9, lines 7-21; Figure 2.

Claim 30 provides a digitizer 170 capable of collecting three-dimensional data about an object, an orientation fixture 180 to automatically reposition the object from a first orientation to a second orientation to expose a first aspect and a second aspect of the object relative to the digitizer 170, a controller 192 to coordinate the automatic repositioning with data capture by the digitizer 170, a host 150 to process the three-dimensional data to render a three-dimensional representation of at least a portion of

the object, the host 150 having a distributed network interface, the interface to transmit the three-dimensional representation to a remote user node 110, and wherein the orientation fixture and the digitizer are physically independent units. See Page, 4, lines 18-24; Page 5, lines 9-11; Page 7, lines 8-15; Page 10, lines 12-23; Page 11, lines 1-2; Figure 1.

Claim 27 provides a digitizer 170 capable of collecting three-dimensional data about an object, an orientation fixture 180 to automatically reposition the object from a first orientation to a second orientation to expose a first aspect and a second aspect of the object relative to the digitizer 170, a controller 192 to coordinate the automatic repositioning with data collection by the digitizer 170, and a data analyzer 196 to identify points of interest in the data collected wherein the digitizer 170 and orientation fixture 180 automatically rescan a portion of the object corresponding to a point of interest identified and a three-dimensional model of a portion of the object is adjusted to improve quality of data previously captured corresponding to the point of interest based on the rescan. See Page, 4, lines 18-24; Page 5, lines 9-11; Page 7, lines 8-15; Page 10, lines 12-23; Page 11, lines 1-2; Page 16, lines 11-23; Figure 1; Figure 7.

Claim 29 provides a digitizer 170 capable of collecting three-dimensional data about an object, an orientation fixture 180 to automatically reposition the object from a first orientation to a second orientation to expose a first aspect and a second aspect of the object relative to the digitizer 170, a controller 192 to coordinate the automatic repositioning with data collection by the digitizer 170 and a data analyzer 196 to identify points of interest in the data collected wherein the digitizer 170 and orientation fixture 180 automatically rescan a portion of the object corresponding to a point of interest identified and a three-dimensional model of a portion of the object is adjusted based on the rescan wherein the rescan is conducted using a different capture method. See Page, 4, lines 18-24; Page 5, lines 9-11; Page 7, lines 8-15; Page 10, lines 12-23; Page 11, lines 1-2; Page 16, lines 11-23; Page 17, lines 1-4; Figure 1; Figure 7.

Claim 20 recites a method including receiving a request over a distributed network to authorize operation of a lockable image capture system at a node remote from the image capture system and coupled to the distributed network and sending an

authorization data to the image capture system across the distributed network such that the image capture system is unlocked and enabled to capture an image. Page 13, lines 19-23, Page 14, lines 1-22; Figure 5. Claim 22 further adds reprogramming a reconfigurable array of logic of the image capture system from a remote node.

Claim 23 provides capturing image data in an image capture device coupled to a distributed network, preventing access to the image data by a local user until an authorization is received and allowing access to the image data upon receipt of the authorization from a remote node on the distributed network. See Page 15, lines 3-19; Figure 6.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues involved in this Appeal are as follows:

A. Whether Claims 1-4, 8-15, 18 and 19 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 5,831,621 issued to Pito ("Pito") in view of U.S. Patent No. 5,991,437 issued to Migdal et. al. ("Migdal")?

B. Whether Claims 5-7, 16-17 and 30 are unpatentable under 35 U.S.C. §103(a) over Pito in view of Migdal and further in view of International Publication No. WO 96/02106 to Vellacott ("Vellacott")?

C. Whether Claims 27-29 are unpatentable under 35 U.S.C. §103(a) over Pito in view of Migdal and further in view of U.S. Patent No. 6,421,079 to Truc et. al. ("Truc")?

D. Whether Claims 20-26 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 5,799,082 issued to Murphy et. al. ("Murphy")?

All of the claims do not stand or fall together. The basis for the separate patentability of the claims is set forth below.

VII. ARGUMENT

The Examiner rejects Claims 1-4, 8-15, 18 and 19 as being unpatentable under 35 U.S.C. §103(a) over Pito in view of Migdal, Claims 5-7, 16-17 and 30 as being unpatentable under 35 U.S.C. §103(a) over Pito in view of Migdal and further in view of Vellacott, Claims 27-29 as being unpatentable under 35 U.S.C. §103(a) over Pito in view of Migdal and further in view of Truc, and Claims 20-26 as being unpatentable under 35 U.S.C. §103(a) over Murphy. Applicant respectfully traverses these rejections for at least the following reasons.

A. Overview of the Prior Art

1. Overview of Pito

Pito teaches a positional space solution to the "next best view" problem. See Pito, Abstract. Pito teaches the system includes a range camera 10 and a computer controlled turntable 14. See Pito, col. 5, lines 30-32. An object 12 is placed on turntable 14 which lies within a scanning area. See Pito, col. 5, lines 37-39. The viewing volume for the setup is a cylinder with the turntable 14 as its base. See Pito, col. 5, lines 39-41. Pito describes a configuration involving positioning the scanner 10 at some point on a circle whose center coincides with that of the turntable 14 in order to define the work space of the cylinder scanner. See Pito, col. 5, lines 50-45.

Pito does not teach an orientation fixture and a digitizer as physically independent units without a predefined relative position nor does Pito teach an orientation fixture and digitizer as integrally coupled. Pito does not teach at least one of a digitizer and orientation fixture capable of automatically locating the relative position of the other. Pito does not teach automatic calibration. Pito does not teach a self contained power source. Pito does not teach communicating over a wireless link or transmitting data remotely.

2. Overview of Migdal

Migdal teaches a system for high accuracy calibration of a scanning system. See Migdal, Abstract. Migdal teaches the scanning system includes hardware elements of a scanning system, a computer and computer programmed elements. See Migdal, col. 4, lines 41-43. Migdal further teaches an object for scanning having geometric patterns. See Migdal, col. 4, lines 60-67. Migdal teaches the object may be a plastic sphere, ball or a lampshade. See Migdal, col. 7, lines 62-67.

Migdal does not teach an orientation fixture and a digitizer as physically independent units without a predefined relative position nor does Migdal teach an orientation fixture and digitizer as integrally coupled. Migdal does not teach at least one of a digitizer and orientation fixture capable of automatically locating the relative position of the other. Migdal does not teach a self contained power source.

3. Overview of Vellacott

Vellacott teaches a self-contained digitally networked camera. See Vellacott, Abstract. Vellacott teaches the camera may be connected directly to a digital communication network. See Vellacott, Abstract. Vellacott teaches the digitally-networked camera is designed for real time video capture, compression, analysis and transmission in circumstances where it is either impractical or not cost effective to use a host PC. See Vellacott, page 8, paragraph 1. Vellacott teaches since the camera operates stand-alone it can be plugged directly into a computer network or deployed remotely in the field using wireless communication. See Vellacott, page 8, paragraph 1.

Vellacott does not teach an orientation fixture and digitizer as physically independent units without a predefined relative position. Vellacott does not teach a wireless link between a digitizer and an orientation fixture.

4. Overview of Truc

Truc teaches a film scanner for scanning a film strip. See Truc, Abstract. Truc teaches a film strip is advanced through a scanner and a digital image of the film strip is created. See Truc, Abstract.

Truc does not teach an orientation fixture and digitizer as physically independent units without a predefined relative position. Truc does not teach a data analyzer to identify points of interest in the data collected wherein the digitizer and orientation fixture automatically rescan a portion of the object corresponding to a point of interest identified and a three-dimensional model of a portion of the object is adjusted to improve quality of data previously captured corresponding to the point of interest based on the rescan.

5. Overview of Murphy

Murphy teaches an apparatus for capturing and authenticating a visual image using a digital camera and a position determining system. See Murphy, Abstract. Murphy teaches a system where digital frames, after having been captured may be "frozen" in a storage module. See Murphy, col. 15, lines 19-31. Murphy does not prevent the viewing of the stored frame. See Murphy, col. 15, lines 6-10. Murphy teaches the digital camera includes a PDS signal receiver and processor that determines position information based on PDS signals received by the camera through the antenna. See Murphy, col. 13, lines 53-67.

Murphy does not teach receiving a request over a distributed network to authorize operation of a lockable image capture system at a node remote from the image capture system and sending an authorization data to the image capture system across a distributed network such that the image capture system is unlocked and enabled to capture an image. Murphy does not teach reprogramming a reconfigurable array of logic of the image capture system from a remote node. Murphy further fails to teach allowing access to captured image data upon receipt of the authorization from a remote node on the distributed network.

B. Rejection of Claims 1, 4 and 12 Under 35 U.S.C. § 103 as Obvious over Pito in view of Migdal

To establish a *prima facie* case of obviousness, the Examiner must show the cited references, combined, teach or suggest each of the elements of a claim.

In regard to Claim 1, Appellant respectfully submits Claim 1 is separately patentable over Pito in view of Migdal for at least the reason that neither Pito nor Migdal, alone or in combination, teach or suggest the element of "the orientation fixture and the digitizer are physically independent units without a predefined relative position" as recited in Claim 1.

Recognizing the failure of Pito to expressly teach an orientation fixture and digitizer as "physically independent units", the Examiner states "[i]t is the interpretation of the Examiner, that Figure 1, discussed in column 5, shows the digitizer and orientation fixture as independent units." See Final Action dated 2/9/2005, "Final Action", page 3. The Examiner further states, the Examiner interprets the language "physically independent units without a predefined relative position" recited in Claim 1 "to mean not contacting (independent) and at a random distance." See Final Action, page 9, paragraph 19. Apparently unable to point to a portion of Pito further teaching the element of "without a predefined relative position", the Examiner alleges Migdal teaches that an item can be at random locations therefore the combination of Pito and Migdal teach an orientation fixture and digitizer as "physically independent units without a predefined relative position" Claim 1. See Final Action, page 9, paragraph 19.

As discussed in the previous responses, Figure 1 is merely a schematic of a sample set up of the Pito scanner 10 and turntable 14. Accordingly, Figure 1 only shows the apparatus of Pito in a symbolic form thus specific features regarding the relationship between the scanner 10 and turntable 14 are absent. Moreover, the portion of Pito cited by the Examiner fails to discuss whether the scanner 10 and turntable 14 are physically independent units without a predefined relative position. Not only does the absence of these specific structural features from Figure 1 prevent the figure from suggesting scanner 10 and turntable 14 are physically independent units without a predefined relative position to one of ordinary skill in the art, such failure prevents the figure from being relied upon as prior art as a matter of law. It is well settled that although drawings and pictures may be used as prior art, "the picture must show all the claimed structural features and how they are put together." See MPEP §2125.

In any event, even if it were possible to characterize elements 10 and 14 as "independent" from one another and in combination with the teachings of Migdal to be "at a random distance" as alleged by the Examiner, this does not meet the limitation of Claim 1. Appellant is free to be his or her own lexicographer and define specific terms used to describe the invention. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002). Moreover, the proper definition of a claim term is that which one of ordinary skill in the art would understand in the context of the particular claim in which it is used as well as the specification. *Unitherm Food Sys., Inc. v. Swift-Eckrich, Inc.*, 375 F.3d 1341, 1351 (Fed. Cir. 2004). Appellant's specification expressly defines the phrase "physically independent" to mean "no mechanical or wired electrical connection must exist between the physically independent units during operation." See Application, page 5, lines 1-3. Appellant further sets forth an example of non-physically independent units as being "two devices coupled together by an electrical signaling wire either directly or through a host computer." See Application, page 5, lines 3-5. Moreover, the Application states due to the independence of the orientation fixture and digitizer, the units are able to "find" each other for example by the digitizer's ability to sweep an area looking within its sensing apparatus for a feature of the orientation fixture. See Application, page 5, lines 21-23; page 6, lines 1-5. Thus, based upon the foregoing definition, it is clear one of ordinary skill in the art would not understand the limitation of "physically independent units without a predetermined relative position" to be met merely by a scanner 10 and turntable 14 not contacting and at random distances from one another as suggested by the Examiner.

Moreover, upon viewing Migdal col. 7, lines 38-53, one of ordinary skill in the art would not understand Migdal to meet the limitation of the units "without a predefined relative position." This portion of Migdal discusses the use of an object 10 to assist in calibration of the system. Nowhere in this portion of Migdal, does Migdal refer to a scanner and turntable without a predefined relative position nor does Migdal state the described calibration system is suitable for units without a predefined relative position.

Moreover, even if it were possible to find Migdal teaches a system for units "without a predefined relative position", the Examiner has not set forth any sort of motivation to combine Migdal with Pito to arrive at the invention recited in Claim 1. The only reasoning the Examiner offers in support of the combination is in regard to Claim 13. In particular, the Examiner alleges Migdal teaches the development of a portable scanning system therefore it would have been obvious to combine the references to teach the "integrally coupled...single unit" of Claim 13. See Final Action, page 4, paragraph 4. Clearly, one of ordinary skill in the art would not be motivated based upon the above rational to combine Pito with Migdal to teach the elements of Claim 1 including "physically independent units." If anything, the reasoning provided by the Examiner would discourage such modifying Pito in view of Migdal to teach the physically independent units without a predefined relative position system recited in Claim 1. Thus, the relied upon combination could only have been motivated by improper hindsight. Such a basis for combining references is erroneous as a matter of law.

Accordingly, for at least the foregoing reasons, Claim 1 and its dependent claims are separately patentable over Pito in view of Migdal. Appellant respectfully requests reconsideration and that the rejection of Claims 1, 4 and 12 under 35 U.S.C. §103(a) be overturned.

C. Rejection of Claim 2 Under 35 U.S.C. § 103 as Obvious over Pito in view of Migdal

Claim 2 depends from Claim 1 and incorporates the limitations thereof. As discussed above in the traversal of Claim 1 as being obvious over Pito in view of Migdal, the references may not be relied upon to teach at least the elements of the "orientation fixture and the digitizer are physically independent units without a predefined relative position" as recited in Claim 1. At least for the reasons that Pito in view of Migdal fails to teach or suggest all the elements of Claim 1, Claim 2 is separately patentable over Migdal in view of Pito.

Claim 2 is further separately patentable for at least the reasons that Pito in view of Migdal fails to teach the element of "wherein at least one of the digitizer and the orientation fixture is capable of automatically locating a relative position of the other" as recited in Claim 2. The Examiner alleges Pito alone teaches this element in column 1, lines 23-33 and column 5, lines 33-35. The Examiner alleges these portions of Pito teaching measuring the distance between the range camera or digitizer and the surface of an object, are equivalent to determining the position of the orientation fixture. See Final Action, page 4, paragraph 5. Appellant respectfully disagrees with the Examiner's characterization. Appellant respectfully submits, if one reads on from the portion of Pito cited by the Examiner it appears that the scanner 10 does not locate the turntable 14 it only measures the distance to it after it is located. See Pito, for example, col. 5, lines 35-55. As such, it appears the range finding performed by the scanner 10 relies on the scanner 10 being manually directed at the center of the turntable 14 which the Examiner equates with the orientation fixture. Upon viewing Pito, one of ordinary skill in the art would not understand the scanner of Pito to be capable of locating the turntable since Pito suggests the scanner is to be positioned and directed to the center of the turntable. See Pito, col. 5, lines 35-39.

Moreover, one of ordinary skill in the art would not understand range finding to be equivalent to automatically locating the relative position of an orientation fixture. Range finding merely determines the distance to an object which a scanner is already centered on. Locating a relative position involves identifying the object being located. Range finding does not identify an object. Thus, the Examiner has not indicated and the Appellant is unable to discern any part of Pito or Migdal teaching a digitizer or scanner "automatically locating the relative position of the other" as required by Claim 2.

Accordingly, for at least these additional reasons, Claim 2 is separately patentable over Pito in view of Migdal. Appellant respectfully requests reconsideration and that the rejection of Claim 2 under 35 U.S.C. §103(a) be overturned.

D. Rejection of Claims 3 and 14 Under 35 U.S.C. § 103 as Obvious over Pito in view of Migdal

Claim 3 depends from Claim 1 and incorporates the limitations thereof. As discussed above in the traversal of Claim 1 as being obvious over Pito in view of Migdal, the references may not be relied upon to teach at least the elements of the "orientation fixture and the digitizer are physically independent units without a predefined relative position" as recited in Claim 1. Claim 14 depends from Claim 13 and incorporates the limitations thereof. As will be discussed more fully below, the references fail to teach all the elements of Claim 13 and in particular "the digitizer and orientation fixture are integrally coupled as a single unit." Thus, at least for the reasons that Pito in view of Migdal fails to teach or suggest all the elements of Claims 1 and 13, Claims 3 and 14 are separately patentable over Migdal in view of Pito.

Claims 3 and 14 are further separately patentable for at least the reasons that Pito in view of Migdal fails to teach the element of "the digitizer capable of automatic calibration" as recited in Claims 3 and 14. The Examiner admits Pito does not specifically teach automatic calibration and further fails to cite to a portion of Migdal teaching this element. See Final Action, page 4, paragraph 6. Instead, the Examiner alleges since calibration is taught by Pito, the addition of automatic calibration would have been an obvious modification to allow for quick set up and measurement of more diverse objects. See Final Action, page 5, paragraph 6.

Nowhere is it suggested by Pito that the described calibration system results in a limitation on the set up speed or complexity of the objects to be scanned. Moreover, Pito does not suggest the desirability of an improved calibration system or that automation of the described system would allow for quick set up and measurement of more diverse objects. Accordingly, the desirability of the modification relied upon by the Examiner is not found within the reference. Moreover, if the Examiner is relying on common knowledge, such reliance without supporting evidentiary evidence is rarely appropriate in a Final rejection especially where, as is the case here, the known fact is not capable of instant and unquestionable verification. See MPEP §2144.03(A).

Moreover, the case cited by the Examiner, namely *In re Venner*, 120 USPQ 193, 194 (CCPA 1958), may not be relied upon as documentary support. It appears from the summary of the case provided by the Examiner the facts of the case are not "sufficiently similar" to those in the instant case. See MPEP §2144.04. In contrast to the Applicant in *In re Venner*, Appellant does not argue the invention hinges on a mere automation of a known system. Instead, Appellant argues that in addition to a digitizer having the feature of being capable of automatic calibration, the prior art does not teach the digitizer itself, which is physically independent from an orientation fixture without a predefined relative position.

Accordingly, for at least these additional reasons, Claims 3 and 14 are separately patentable over Pito in view of Migdal. Appellant respectfully requests reconsideration and that the rejection of Claims 3 and 14 under 35 U.S.C. §103(a) be overturned.

E. Rejection of Claims 8, 9 and 18 Under 35 U.S.C. § 103 as Obvious over Pito in view of Migdal

Claims 8 and 9 depend from Claim 1 and incorporates the limitations thereof. As discussed above in the traversal of Claim 1 as being obvious over Pito in view of Migdal, the references may not be relied upon to teach at least the elements of the "orientation fixture and the digitizer are physically independent units without a predefined relative position" as recited in Claim 1. Thus, at least for the reasons that Pito in view of Migdal fails to teach or suggest all the elements of Claim 1, Claims 8 and 9 are separately patentable over Migdal in view of Pito.

In regard to Claim 18, Claim 18 depends from Claim 13 and incorporates the limitations thereof. As will be discussed more fully below, the references fail to teach or suggest at least the element of "the digitizer and orientation fixture are digitally coupled as a single unit" as recited in Claim 13. Thus, at least for the reasons that Pito in view of Migdal fails to teach or suggest all the elements of Claim 13, Claim 18 is separately patentable over Migdal in view of Pito.

Claims 8, 9 and 18 are further separately patentable for at least the reasons that Pito in view of Migdal fails to teach the element of the orientation fixture (Claim 8), the

digitizer (Claim 9), or a single unit (Claim 18) having "a self contained power source." Apparently recognizing the failure of Pito to teach this element, the Examiner alleges Migdal suggests the development of portable scanning systems is desirable. See Final Action, page 5, paragraph 8. On this basis, the Examiner reasons that a "self-contained power source" would make a system portable therefore this element is an obvious modification of Pito in view of Migdal. The Examiner further relies upon a case, namely *In re Lindberg*, 93 USPQ 23 (CCPA 1952), in support of his conclusion that making an old device portable or movable is not novel.

Appellant respectfully submits, the Examiner's reasoning loses site of the element recited in Claims 8, 9 and 18. Nowhere within these claims is the language "portable scanning system" used. Portability is not what is being claimed. Instead, Appellant claims an "orientation fixture comprising a self contained power source" (Claim 8), a "digitizer comprising a self contained power source" and a "single unit comprises a self contained power source." The Examiner does not point to any portion of Pito or Migdal teaching "a self contained power source" or even describing a desirable power source for the disclosed system. Appellant respectfully submits, the element of "a self contained power source" may not be taught by the generic suggestion of a portable system in Migdal. Nowhere, does Migdal describe the features of the suggested portable system, much less contemplate the portability of the system has anything to do with the type of power source used.

Moreover, Migdal teaches the system refers to a scanning system including hardware elements of a scanning system, a computer and computer programmed elements and objects to be analyzed by the system. See Migdal, col. 4, lines 41-44. Incorporating a self contained power source into a unit of the system (e.g. scanner, turntable, computer, etc), which would be required were Migdal to meet the limitation recited in Claims 8, 9 and 18, would not result in the described system being portable. For example, if a self contained power source were incorporated into a scanner of the system, the system referenced by the Examiner would not be portable. Rather, only a portion (i.e. the scanner) of the system. Thus, upon viewing the teachings of Migdal

noting a portable scanning system, one of ordinary skill in the art would not be motivated to modify a scanner 10, turntable 14, etc. of Pito to include a self contained power source. Thus, it appears it is only upon viewing Appellant's specification that the modification relied upon by the Examiner is recognized. Such reliance on hindsight reconstruction in rendering a claim obvious is erroneous as a matter of law.

Accordingly, for at least these additional reasons, Claims 8, 9 and 18 are separately patentable over Pito in view of Migdal. Appellant respectfully requests reconsideration and that the rejection of Claims 8, 9 and 18 under 35 U.S.C. §103(a) be overturned.

F. Rejection of Claims 10 and 11 Under 35 U.S.C. § 103 as Obvious over Pito in view of Migdal

Claims 10 and 11 depend from Claim 1 and incorporates the limitations thereof. As discussed above in the traversal of Claim 1 as being obvious over Pito in view of Migdal, the references may not be relied upon to teach at least the elements of the "orientation fixture and the digitizer are physically independent units without a predefined relative position" as recited in Claim 1. Thus, at least for the reasons that Pito in view of Migdal fails to teach or suggest all the elements of Claim 1, Claims 10 and 11 are separately patentable over Migdal in view of Pito.

Claims 10 and 11 are further separately patentable for at least the reasons that Pito in view of Migdal fails to teach the elements of the orientation fixture comprising a "distinctive feature that permits the digitizer to acquire the orientation fixture by scanning an area for the distinctive feature" as recited in Claim 10 and "a localized energy source that permits the digitizer to acquire the orientation fixture" as recited in Claim 11. Apparently recognizing the failure of Pito to teach these elements, the Examiner combines Migdal with Pito stating Migdal "shows the use of geometric shapes (column 7, lines 38-53) for orientation fixture identification." See Final Action, page 5, paragraph 9.

There are several reasons why the Examiner's grounds for rejecting Claims 10 and 11 must fail. In merely stating Migdal "shows the use of geometric shapes for

orientation fixture identification," the Examiner does not meet his initial burden of setting forth a "convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." See MPEP §2142, citing *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). Thus, the Examiner has failed to provided any sort of motivation for the relied upon combination.

Moreover, even if it were possible to combine Pito and Migdal, and Applicant does not believe it is, the Examiner has failed to provided a sufficient explanation as to how the presence of "geometric shapes" on an object for calibration teaches an orientation fixture having "a distinctive feature that permits the digitizer to acquire the orientation fixture by scanning an area for the distinctive feature" (Claim 10) or "a localized energy source that permits the digitizer to acquire the orientation fixture" (Claim 11). The closest explanation the Appellant can find is in the Examiner's rejection of Claims 1 and 13 is the Examiner's statement that Migdal's teaching of a calibration object with geometric shapes means that the scanner can "'find' the object, and accurately determine the distance from the scanner." See Final Action, page 3. Such an explanation still falls short of teaching or suggesting the claimed "distinctive feature" (Claim 10) or "localized energy source" (Claim 11) of the orientation fixture that allows the digitizer to acquire the orientation fixture. Certainly, the "object" may not be characterized as a "distinctive feature" or "localized energy source" of a particular unit (i.e. orientation fixture) of the calibration system. Migdal teaches the object may be any product such as a plastic sphere, ball or lamp shade. See Migdal, col. 7, lines 62-66) Thus, it appears it is only upon viewing Appellant's specification that the modification relied upon by the Examiner is recognized. Such reliance on hindsight reconstruction in rendering a claim obvious is erroneous as a matter of law.

Accordingly, for at least these additional reasons, Claims 10 and 11 are separately patentable over Pito in view of Migdal. Appellant respectfully requests reconsideration and that the rejection of Claims 10 and 11 under 35 U.S.C. §103(a) be overturned.

G. Rejection of Claims 13, 15 and 19 Under 35 U.S.C. § 103 as Obvious over Pito in view of Migdal

In regard to independent Claim 13, the Examiner admits that Pito does not teach at least the element wherein the "digitizer and orientation fixture are integrally coupled as a single unit" as recited in Claim 13. See Final Action, page 4, paragraph 4. Instead, the Examiner alleges Migdal suggests the development of a portable scanning system and on this basis concludes coupling units together for the purpose of portability is obvious therefore it would have been obvious to combine the teachings of Pito with Migdal for the purpose of creating a highly accurate scanning system. See Final Action, page 4, paragraph 4.

Neither Pito nor Migdal expressly teach integrally coupling separate units to create a single unit. Still further, Migdal fails to describe what features or configuration of the system would result in a "portable scanning system" or even contemplate "integrally coupling separate units" of the system would result in a portable system. Accordingly, in addition to the failure of the references to support the Examiner's modification, the Examiner's rationale in combining the references must further fail on the basis that it is simply not true. Combining two independent units into a single unit does not necessarily render such a unit portable nor does it create a highly accurate scanning system. In essence, the Examiner is proposing that some piece of material join the scanning camera and turntable of Pito to form a single integral unit. This would add additional materials to join the two objects, thereby increasing the weight and overall sizes of the device. Accordingly, such a modification is not likely to render the system portable as it will be heavier and bulkier and thus more difficult to handle then in the configuration where each unit is separated. Still further, accuracy goes to the precision of the data produced by the system. Appellant does not understand, and the Examiner has not set forth, how portability of the scanning system would make it more accurate.

Moreover, the Examiner's conclusion that Migdal suggests an integrated system belies the Examiner's previous statements in regard to Claim 1. As previously set forth,

in rejecting Claim 1, the Examiner argued the combination of Pito with Migdal teaches a digitizer and orientation fixture being "physically independent units without a predefined relative unit." The Examine further explained this element of Claim 1 was interpreted to mean "not contacting (independent) and at a random distance" and that Migdal teaches an item can be at random locations. See Final Action, page 9, paragraph 19. Thus, in rejecting Claim 1, the Examiner suggests Migdal teaches separate units yet in rejecting Claim 13 the Examiner relies upon Migdal to teach integral units. Appellant respectfully submits, the Examiner may not have it both ways.

Accordingly, for at least these additional reasons, Claim 13 and its dependent claims are separately patentable over Pito in view of Migdal. Appellant respectfully requests reconsideration and that the rejection of Claims 13, 15 and 19 under 35 U.S.C. §103(a) be overturned.

H. Rejection of Claims 5, 6, 16, 17 and 30 Under 35 U.S.C. § 103 as Obvious over Pito in view of Migdal and further in view of Vellacott

Claims 5-6 depend from Claim 1 and incorporate the limitations thereof. Claims 16-17 depend from Claim 13 and incorporate the limitations thereof. As discussed above in the traversal of Claim 1 as being obvious over Pito in view of Migdal, the references may not be relied upon to teach at least the elements of the "orientation fixture and the digitizer are physically independent units without a predefined relative position." The Examiner has not set forth, and Appellant is unable to discern a portion of Vellacott curing the deficiencies of Migdal and Pito with respect to at least these elements. Thus, for at least the reason that Pito in view of Migdal and further in view of Vellacott fails to teach or suggest all the elements of Claims 1 and 13, Claims 5-6 and 16-17 are separately patentable over Migdal in view of Pito and further in view of Vellacott.

Similar to Claim 1, Claim 30 includes, in addition to others, the limitation of "wherein the orientation fixture and the digitizer are physically independent units." For at least the reasons previously discussed in regard to Claim 1, Migdal in view of Pito and further in view of Vellacott may not be relied upon to teach at least this

element. Thus, for at least these reasons Claim 30 is separately patentable over Migdal in view of Pito and further in view of Vellacott.

Claims 5-6, 16-17 and 30 are further separately patentable for at least the reasons that there is not motivation to combine Pito and Migdal with Vellacott. The Examiner admits Pito fails to teach communicating over a wireless link, as well as transmitting data remotely and instead relies upon Vellacott to teach these elements alleging Vellacott discloses use of LAN systems, wireless communications, remote transmissions and that host PC's are well known in the art. See Final Action, page 7, paragraph 12. On this basis, the Examiner concludes it would have been obvious to one of ordinary skill in the art to combine the teachings of Vellacott and Pito for the purpose of creating a more robust three-dimensional scanning system. See Final Action, page 7, paragraph 12.

Appellant respectfully disagrees with the Examiner's conclusion for at least the reasons stated in Appellant's previous responses. In particular, there is no motivation to combine Vellacott in the manner suggested by the Examiner because Vellacott teaches away from using a host PC and advocates the use of wireless communication directly to network (i.e. without a host) when the camera must be used as a stand alone unit remotely deployed in the field. See Vellacott, page 8, paragraph 1. Therefore, the use of the host is recited in Appellant's claims 5-6, 16-17 and 30 is taught away from by Vellacott which renders Vellacott inappropriate for combination with Pito. As admitted by the Examiner, Vellacott teaches using a host PC may be impractical and not cost effective yet the Examiner nevertheless relies upon Vellacott in modifying Pito to incorporate such features. In response to Appellant's previous statements that the Examiner has failed to meet its burden of establishing that the cited references teach the desirability of the proposed combination, the Examiner alleges the combination would have been obvious to one of ordinary skill in the art for the purpose of providing a more robust three-dimensional scanning system. See Final Action, page 7, paragraph 12. The Examiner's added statement, however, still falls short of the "convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references" (emphasis added) required in

support of the relied upon modification. See MPEP §2142, citing *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). Moreover, Appellant is unable to discern where within the references themselves it is suggested the described systems are not sufficiently "robust" or where such an improvement on the systems is contemplated. Thus, it appears it is only upon viewing Appellant's specification that the modification relied upon by the Examiner is recognized. Such reliance on hindsight reconstruction in rendering a claim obvious is erroneous as a matter of law.

Accordingly, for at least these additional reasons, Claims 5, 6, 16, 17 and 30 are separately patentable over Pito in view of Migdal and further in view of Vellacott. Appellant respectfully requests reconsideration and that the rejection of Claims 5, 6, 16, 17 and 30 under 35 U.S.C. §103(a) be overturned.

I. Rejection of Claim 7 Under 35 U.S.C. § 103 as Obvious over Pito in view of Migdal and further in view of Vellacott

Claims 7 depends from Claim 1 and incorporate the limitations thereof. As discussed above in the traversal of Claim 1 as being obvious over Pito in view of Migdal, the references may not be relied upon to teach at least the elements of the "orientation fixture and the digitizer are physically independent units without a predefined relative position." The Examiner has not set forth, and Appellant is unable to discern a portion of Vellacott curing the deficiencies of Migdal and Pito with respect to at least these elements. Thus, at least for at least the reason that Pito in view of Migdal and further in view of Vellacott fails to teach or suggest all the elements of Claim 1, Claim 7 is separately patentable over Migdal in view of Pito and further in view of Vellacott.

Claim 7 is further separately patentable for at least the reasons that Pito and Migdal in view of Vellacott fail to teach the element of "wherein the digitizer communicates with the orientation fixture over a wireless link" as recited in Claim 7. In particular, the direct wireless link between a camera and a network described in Vellacott neither teaches nor suggests a wireless link between a digitizer and an orientation fixture as required by Claim 7. The Examiner has not set forth and

Appellant is unable to discern any portion of Vellacott describing an orientation fixture or suggesting the wireless link is between a digitizer and an orientation fixture. Moreover, even if it were possible to find Vellacott teaches the elements of Claim 7, for at least the reasons previously discussed, the combination of Pito, Migdal and Vellacott is improper.

Accordingly, for at least these additional reasons, Claim 7 is separately patentable over Pito in view of Migdal and further in view of Vellacott. Appellant respectfully requests reconsideration and that the rejection of Claim 7 under 35 U.S.C. §103(a) be overturned.

J. Rejection of Claims 27, 28 and 29 Under 35 U.S.C. § 103 as Obvious over Pito in view of Migdal and further in view of Truc

In regard to independent Claims 27 and 29, Appellant respectfully submits these claims are separately patentable over the combination of Pito, Migdal and Truc at least for the reason that the combination may not be relied upon to teach at least the element of "a data analyzer to identify points of interest in the data collected wherein the digitizer and orientation fixture automatically rescan a portion of the object corresponding to a point of interest identified and a three-dimensional model of a portion of the object is adjusted to improve quality of data previously captured corresponding to the point of interest based on the rescan" as recited in Claims 27 and 29.

The Examiner admits Pito fails to specifically disclose this element and does not rely upon Migdal in this regard. It is noted by Appellant that nowhere within the grounds stated for rejecting Claims 27-29 (See Final Action, page 7, paragraph 14) does the Examiner mention Migdal therefore Appellant is unsure on what basis the addition of Migdal to Pito and Truc renders the claims obvious. Instead, the Examiner alleges Truc teaches (column 1, lines 33-41) that rescanning selected images at higher resolution is desirable and a scanner which rescans selected images at a higher resolution (column 15, lines 51-67) is disclosed. See Final Action, page 8, paragraph 14. On this basis, the Examiner concludes it would have been obvious to one of ordinary skill in the art to

combine the teachings of Pito and Truc for the purpose of creating a scanning system capable of producing quality high resolution images. See Final Action, page 8, paragraph 14.

Appellant respectfully traverses the rejection for at least the reasons set forth in the previous response dated September 23, 2004, namely that Truc is nonanalogous art and therefore may not be properly combined with Pito in the manner suggested by the Examiner. In particular, Truc teaches a film scanner for scanning a film strip. See Truc, Abstract. In contrast, Pito teaches a range scanner for building a surface image of a three dimensional object. See Pito, Abstract; Figure 1. The scanning of a film strip is not remotely analogous to the scanning of three-dimensional physical objects. In this combination of references, none of which would be combined without the aid of hindsight looking back through Appellant's own disclosure, the Examiner attempts to unsuccessfully construct what Appellant claims in Claims 27 and 29. For at least the foregoing reasons, this combination is inappropriate.

Accordingly, for at least the foregoing reasons, Claims 27 and 29 and their dependent claims are separately patentable over Pito in view of Migdal and further in view of Truc. Appellant respectfully requests reconsideration and that the rejection of Claim 27, 28 and 29 under 35 U.S.C. §103(a) be overturned.

K. Rejection of Claims 20 and 21 Under 35 U.S.C. § 103 as Obvious over Murphy

Independent Claim 20 is separately patentable over Murphy at least for the reason that Murphy fails to teach or suggest at least the elements of "receiving a request over a distributed network to authorize operation of a lockable image capture system at a node remote from the image capture system" and "sending an authorization data to the image capture system across a distributed network such that the image capture system is unlocked and enabled to capture an image."

The Examiner alleges col. 15, lines 6-31 of Murphy discloses these elements. See Final Action, page 8, paragraph 16. The Examiner admits Murphy does not specifically disclose unlocking and an image capture system, however, takes official notice of the

fact that a frame lock mechanism which prevents image data from being downloaded serves the same purpose. See Final Action, page 8, paragraph 16. On this basis, the Examiner alleges it would have been obvious to employ the locking mechanism of Murphy for the purpose of maintaining an uncompromised network. See Final Action, page 9, paragraph 16.

Appellant respectfully disagrees with the Examiner's rational for at least the reasons discussed in the previous response dated May 10, 2004. In particular, the cited section of Murphy teaches a system where digital frames, after having been captured, may be "frozen" in a storage module. See Murphy, col. 15, lines 19-31. Thus, Murphy does not does not prevent the use of the digital camera to capture images, but only prevents download after capture. Murphy does not prevent the viewing of the stored frame. See Murphy, col. 15, lines 6-10. This is not equivalent to what is claimed in Claim 20. Claim 20 states clearly that the authentication data is provided to unlock and enable the capture of an image. See Claim 20, lines 5 and 6. Murphy does not teach a system that controls locking and unlocking of an image capture system where locking and unlocking prevents or enables a capture of an image. Thus, Murphy does not teach each of the elements of Claim 20. The Examiner has not identified and Appellant is unable to discern any part of Murphy that teaches or suggests modifying Murphy's system to control the capturing of images.

Accordingly, for at least the foregoing reasons, Claim 20 and its dependent claims are separately patentable over Murphy. Appellant respectfully requests reconsideration and that the rejection of Claims 20 and 21 under 35 U.S.C. §103(a) be overturned.

L. Rejection of Claim 22 Under 35 U.S.C. § 103 as Obvious over Murphy

Claims 22 depends from Claim 20 and incorporate the limitations thereof. As discussed above in the traversal of Claim 20 as being obvious over Murphy, the references fails to teach or suggest at least the elements of "receiving a request over a distributed network to authorize operation of a lockable image capture system at a node remote from the image capture system" and "sending an authorization data to the

image capture system across a distributed network such that the image capture system is unlocked and enabled to capture an image." Thus, at least for the reasons that Murphy fails to teach or suggest all the elements of Claim 20, Claim 22 is separately patentable over Murphy.

Claim 22 is further separately patentable for at least the reasons that Murphy fails to teach the element of "reprogramming a reconfigurable array of logic of the image capture system from a remote node" as recited in Claim 22. The Examiner cites col. 13, lines 53-67 as teaching these elements of Claim 22. However, for at least the reasons previously discussed in the response dated May 10, 2004, the Examiner uses an erroneous understanding of the cited section in justifying the rejection. The cited section does not teach a digital camera that receives a reprogramming of reconfigurable array logic from a remote node. Rather, the cited section teaches a digital camera with a PDS signal receiver and processor that determines position information based on PDS signals received by the camera through the antenna. The PDS signal is not a signal from a remote node conveying programming information. Rather a PDS signal is similar to a global position signal (GPS). A PDS signal is a simple signal that is transmitted by satellite which a receiver and processor may utilize to determine the location of the receiving PDS processor. Thus, PDS processor determines it's own location and does not receive any reprogramming from a remote node. See Murphy, col. 9, lines 46-60.

Accordingly, for at least these additional reasons, Claim 22 is separately patentable over Murphy. Appellant respectfully requests reconsideration and that the rejection of Claim 22 under 35 U.S.C. §103(a) be overturned.

M. Rejection of Claims 23, 24 and 26 Under 35 U.S.C. § 103 as Obvious over Murphy

Independent Claim 23 is separately patentable over Murphy at least for the reason that Murphy fails to teach or suggest at least the elements of allowing access to captured image data "upon receipt of the authorization from a remote node on the distributed network." The Examiner relies on col. 15, lines 6-31 of Murphy as teaching

these elements of Claim 23. The Examiner alleges Murphy teaches that information be transferred back and forth to the digital camera that is part of the distributed network.

For at least the reasons discussed in the previous response dated September 23, 2004, the Examiner overstates the teachings of Murphy in this regard. In particular, Murphy teaches a download port 47 and the reception of a software or hardware key that allows information download. The Examiner has not indicated and Appellant is unable to discern any part of Murphy that teaches that either the download or the reception of the key may occur over a network connection. Further, the Examiner has not identified and Appellant is unable to discern any part of Murphy that teaches modifying these teachings to utilize a network connection. Thus, the Examiner has failed to establish a *prima facie* case of obviousness for independent claim 23.

Accordingly, for at least the foregoing reasons, Claim 23 and its dependent claims are separately patentable over Murphy. Appellant respectfully requests reconsideration and that the rejection of Claims 23, 24 and 26 under 35 U.S.C. §103(a) be overturned.

VIII. CONCLUSION AND RELIEF

Accordingly, it is submitted that the rejections of claims 1-30 based on 35 U.S.C. 103 be overturned.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

Dated: October 7, 2005

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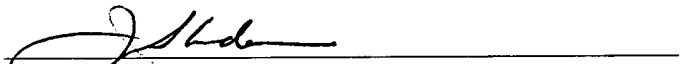
Jean Svoboda

IX. CLAIMS APPENDIX

The claims involved in this Appeal are as follows:

1. (Previously Presented) A system comprising:

a digitizer capable of collecting three-dimensional data about an object;

an orientation fixture to automatically reposition the object from a first orientation to a second orientation to expose a first aspect and a second aspect of the object relative to the digitizer; and

a controller to coordinate the automatic repositioning with data capture by the digitizer;

wherein the orientation fixture and the digitizer are physically independent units without a predefined relative position.

2. (Original) The system of claim 1 wherein at least one of the digitizer and the orientation fixture is capable of automatically locating the relative position of the other.

3. (Original) The system of claim 1 wherein the digitizer is capable of automatic calibration.

4. (Original) The system of claim 1 further comprising:

a host to process the three-dimensional data to render a three-dimensional representation of at least a portion of the object.

5. (Original) The system of claim 4 wherein the host comprises:

a distributed network interface, the interface to transmit the three-dimensional representation to a remote user node.

6. (Original) The system of claim 4 wherein the digitizer communicates with the host over a wireless link.

7. (Original) The system of claim 1 wherein the digitizer communicates with the orientation fixture over a wireless link.

8. (Original) The system of claim 1 wherein the orientation fixture comprises:
a self contained power source.

9. (Original) The system of claim 1 wherein the digitizer comprises:
a self contained power source.

10. (Original) The system of claim 1 wherein the orientation fixture comprises:
a distinctive feature that permits the digitizer to acquire the orientation fixture by scanning an area for the distinctive feature.

11. (Original) The system of claim 1 wherein the orientation fixture comprises:
a localized energy source that permits the digitizer to acquire the orientation fixture.

12. (Original) The system of claim 1 wherein the orientation fixture is a turntable.

13. (Original) A system comprising:
a digitizer having a linear image sensor to collect three-dimensional data about an object;
an orientation fixture to automatically reposition the object from a first orientation to a second orientation to expose a first aspect and a second aspect of the object relative to the digitizer, wherein the digitizer and orientation fixture are integrally coupled as a single unit; and
a controller to coordinate the automatic repositioning with data capture by the digitizer.

14. (Original) The system of claim 13 wherein the digitizer is capable of automatic calibration.

15. (Original) The system of claim 13 comprising:

a host to process the three-dimensional data to render a three-dimensional representation of at least a portion of the object.

16. (Original) The system of claim 15 wherein the host comprises:

a distributed network interface, the interface to transmit the three-dimensional representation to a remote node.

17. (Original) The system of claim 15 wherein the single unit communicates with the host over a wireless link.

18. (Original) The system of claim 13 wherein the single unit comprises:

a self contained power source.

19. (Original) The system of claim 13 wherein the orientation fixture is a turntable.

20. (Original) A method comprising:

receiving a request over a distributed network to authorize operation of a lockable image capture system at a node remote from the image capture system and coupled to the distributed network; and

sending an authorization data to the image capture system across the distributed network such that the image capture system is unlocked and enabled to capture an image.

21. (Original) The method of claim 20 wherein the image capture system performs three-dimensional imaging.

22. (Original) The method of claim 20 further comprising:

reprogramming a reconfigurable array of logic of the image capture system from a remote node.

23. (Original) A method comprising:

capturing image data in an image capture device coupled to a distributed network;

preventing access to the image data by a local user until an authorization is received; and

allowing access to the image data upon receipt of the authorization from a remote node on the distributed network.

24. (Original) The method of claim 23 wherein preventing access comprises:

encrypting the image data with an algorithm that can be decrypted with information from the remote node.

25. (Original) The method of claim 24 wherein preventing access further comprises:

disabling local storage of the encrypted image data.

26. (Original) The method of 24 further comprising:

uploading the encrypted image data to the remote node.

27. (Previously Presented) A system comprising:

a digitizer capable of collecting three-dimensional data about an object;

an orientation fixture to automatically reposition the object from a first orientation to a second orientation to expose a first aspect and a second aspect of the object relative to the digitizer;

a controller to coordinate the automatic repositioning with data collection by the digitizer; and

a data analyzer to identify points of interest in the data collected wherein the digitizer and orientation fixture automatically rescan a portion of the object corresponding to a point of interest identified and a three-dimensional model of a portion of the object is adjusted to improve quality of data previously captured corresponding to the point of interest based on the rescan.

28. (Original) The system of claim 27 wherein the rescan is conducted at a higher resolution than a resolution of an original scan.

29. (Previously Presented) A system comprising:

a digitizer capable of collecting three-dimensional data about an object;

an orientation fixture to automatically reposition the object from a first orientation to a second orientation to expose a first aspect and a second aspect of the object relative to the digitizer;

a controller to coordinate the automatic repositioning with data collection by the digitizer; and

a data analyzer to identify points of interest in the data collected wherein the digitizer and orientation fixture automatically rescan a portion of the object corresponding to a point of interest identified and a three-dimensional model of a portion of the object is adjusted based on the rescan wherein the rescan is conducted using a different capture method.

30. (Previously Presented) A system comprising:

a digitizer capable of collecting three-dimensional data about an object;

an orientation fixture to automatically reposition the object from a first orientation to a second orientation to expose a first aspect and a second aspect of the object relative to the digitizer;

a controller to coordinate the automatic repositioning with data capture by the digitizer;

a host to process the three-dimensional data to render a three-dimensional representation of at least a portion of the object, the host having a distributed network interface, the interface to transmit the three-dimensional representation to a remote user node; and

wherein the orientation fixture and the digitizer are physically independent units.

X. EVIDENCE APPENDIX

Not Applicable.

XI. RELATED PROCEEDINGS APPENDIX

Not Applicable.